

NAS CONFIGURATION CONTROL DECISION

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1. CCD No. N23038	2. Case File No. SD100-NAS-001
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3. NCP Title

Baseline Data Standard for the National Airspace System (FAA-STD-060)

4. Site Location(s) (Local or Test NCPs/CCDs only)

N/A

5. Configuration Item Designator(s)

NAS

6. Action Directed

Accomplish the actions described in NCP 23038, dated June 15, 2001, and as modified by the resolution of comments.

ACTION

ASD-100 . Coordinate publication and distribution of subject documentation.

 . Ensure copies of the document are delivered to ACM-20 (DCC).

DCC . Create/Update records in DOCCON for document cited above in accordance with this CCD. Notify ACM-20 that the documentation has been received.

ACM-20 . Update CM/STAT to reflect closure of actions.

Upon completion of the above actions, sign the grid attached to this CCD form and forward a copy to ACM-20.

7. Remarks or Explanation of Disapproval

Attached: Resolution of Comments. As part of the agreement with the ATB organization, those meta attributes required for software development shall be defined and added to the next revision of FAA-STD-060.

8. Decision

☒ Approval

☐ Disapproval

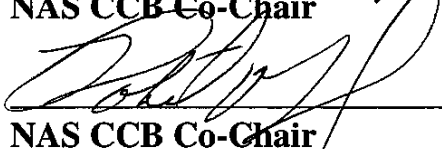
9. Date

12/6/01

10. Signature and Title



NAS CCB Co-Chair



NAS CCB Co-Chair

NAS CONFIGURATION CONTROL DECISION

CCD ACTION COMPLETION VERIFICATION

CCB	NAS	CCB
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11. ACTION OFFICE		
NAME	ROUTING SYMBOL	DATE

DATE _____

AUTHORIZING OFFICIAL:		



FAA-STD-060
July 18, 2001
Draft

U.S Department
of Transportation

**Federal Aviation
Administration**

U.S. Department of Transportation

**Federal Aviation Administration
Standard**

DATA STANDARD
FOR
THE NATIONAL AIRSPACE SYSTEM (NAS)

Foreword

This Standard sets forth the requirements for systems in the National Airspace System (NAS) that will interface and share data with other NAS systems. It provides the standard definitions for representing commonly shared NAS data. This standard is intended for use by the Federal Aviation Administration (FAA), and by contractors to the FAA involved in the development of NAS systems.

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1.0 Introduction

Standardization is an enabling strategy, which can help developing organizations and system owners to achieve a common goal of providing the NAS with equipment that is interoperable, reliable, and technologically superior. Since the FAA usually retains existing systems beyond their planned service life, affordable and rapid technology insertion depends, in part, on FAA's ability to define standard solutions across systems based on performance and interface requirements. Adoption of application-independent data standards will help the FAA integrate and share NAS information across multiple systems, programs, government agencies, industry, and the international community.

1.1 Scope

This Standard describes the detailed NAS data specifications for use in defining all data in interfaces controlled by the National Airspace System Configuration Control Board (NAS CCB) (e.g., interfaces specified in an Interface Requirements Document [IRD] that becomes a NAS Configuration Item [CI]).

1.2 Purpose

The purpose of this Standard is to establish and communicate application-independent data exchange requirements to be applied during the development and support of software systems. Each individual data standard is a description of a data element shared among NAS Information Systems¹ and is portrayed through a common set of metadata (data *about* data). The metadata set is compliant with the recommendations set forth in ISO/IEC 11179² and follows best practices for managing shareable data. Appendix A of this document contains a list of the individual data standards that meet requirements of the NAS systems. This list, which is managed through the authority of the NAS CCB, is dynamic and changes to meet the information needs of the FAA. The individual data standards are maintained in the FAA Data Registry (FDR) tool and are available at the FDR Web site (see Appendix A).

¹ Refer to Definitions in Appendix B

² Refer to Section 2.2

1.3 Applicability

The established individual data standards shall be applied to new procurements through Acquisition management System (AMS) guidance and procedures. The FAA does not require the data standards to be retrofitted to existing NAS systems. Other NAS stakeholders are encouraged to adopt this Standard.

This Standard is applicable to the following:

- a. All programs responsible for developing and acquiring NAS systems that share data with other NAS systems through interfaces that are controlled by the NAS CCB (e.g., interfaces specified in an IRD that becomes a NAS CI).
- b. All new information systems.
- c. Persons developing proposed legislation that will result in the collection of data.
- d. Information Collection Requests (ICRs) where system owners have determined that there is a need to collect data.

1.4 Tailoring

Tailoring is the process of selecting individual, applicable data standards for a specific acquisition. The following steps are required whenever this Standard is to be tailored for a specific project:

1.4.1 Characterizing the project environment

The responsible developing organization shall document the specific technical data characteristics of the target project environment.

1.4.2 Soliciting inputs

The responsible developing organization shall solicit inputs regarding the application and potential tailoring of this Standard from those organizations that will interface with or be affected by the target system, e.g., all stakeholder organizations, users, support personnel, contracting officers, and potential bidders.

1.4.3. Selecting applicable data standards

The responsible developing organization shall select the specific data standards to be deleted as part of the tailoring of this Standard to the target system.

1.4.4 Documenting all tailoring decisions

The responsible developing organization shall document each tailoring decision with the rationale for the decision. Tailoring documentation is subject to review by the NAS CCB and tailoring will be considered in acquisition decisions at all levels.

1.5 Compliance

This Standard requires that new NAS applications be in conformance with the individual data standards listed in Appendix A of this document. For example, the data fields in the new applications will be in compliance with the Standard and the metadata for these data fields will be specified in accordance with the Standard. It does not, however, establish a requirement to reengineer existing applications to conform to new data exchange requirements unless a satisfactory cost-benefit result can be demonstrated.

2.0 Reference Documents

2.1 Government Documents

Federal Aviation Administration

Standards

FAA-STD-026

Software Development for the NAS, June 6, 2001

Policies and Orders

FAA Order/Policy 1375.1 c
FAA Order 1800.66

FAA Data Management Policy, June 20, 2001
Configuration Management Policy, December 13, 2000

Department of Defense

4120.24 – M

Defense Standardization Program Policies and Procedures, March 2000

2.2 Non-government Documents

Institute of Electrical and Electronics Engineers/Electronic Industries Association

IEEE/EIA 12207.0	Software Life Cycle Processes, 1996
IEEE/EIA 12207.1	Software life Cycle Processes – Life Cycle Data, 1997
IEEE/EIA 12207.2	Software Life Cycle Processes – Implementation Considerations, 1997

International Organization for Standardization/International Electrotechnical Commission

ISO/IEC 11179	Information Technology-Specification and Standardization of Data Elements, December 11, 1996
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2.3 Document Sources

2.3.1 FAA Documents

Copies of FAA specifications, standards, and publications may be obtained from the Contracting Officer, Federal Aviation Administration, 800 Independence Avenue, SW, Washington D.C., 20591. Requests shall clearly identify the desired material by number and date, and state the intended use of the material. FAA publications are also available on the FAA Acquisition System Toolset (FAST) Web site <http://fast.faa.gov/>

2.3.2 DOD Documents

Copies of Defense Standardization Program Policies and Procedures may be obtained from the Web site <http://www.dsp.dla.mil/>.

2.3.3 IEEE Documents

Copies of IEEE standards may be obtained from IEEE Customer Service, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331, USA. Phone: 1-800-678-IEEE (in the US and Canada), FAX 1-732-981-9667, On-line <http://www.ieee.org>.

2.3.4 EIA Documents

Copies of EIA standards may be obtained from the Electronic Industries Association, 2001 Eye Street, NW, Washington, DC 20006.

2.3.5 ISO Documents

Copies of ISO standards can be obtained electronically from the Web site http://webstore.ansi.org/ansidocstore/shopper_lookup.asp. Paper standards are available through Global Engineering Documents, 15 Inverness Way East, Sales – C303B Englewood, CO 80112-9649, Telephone: (800) 854-7117, FAX (303) 397-2740 or at the Web site <http://global.ihs.com/>.

2.4 Order of Precedence

In the event of conflict between the documents listed herein and the contents of this Standard, the contents of this FAA-approved Standard shall be the superseding requirement.

2.5 Document Maintenance

Changes and updates to this Standard, including the individual data standards listed in Appendix A, shall be proposed via NAS Change Proposal (NCP) and processed through the NAS CCB. Under the FAA's Data Management Policy and this Standard, the FDR is the authoritative source for data standards, each of which is assigned to a Data Steward. The appointed Data Registrar is charged with the responsibility for FDR maintenance and operational availability. At least every 5 years or as determined by the Data Steward, each data standard will be reviewed for applicability to the NAS and updated if required.

3.0 Requirements

The individual data standards listed in Appendix A shall be used in all NAS Information Systems³. Data standards in Appendix A shall be maintained in the FAA Data Registry and published at the FDR Web site (see Appendix A).

³ Refer to Definitions in Appendix B

Appendix A

Report of Data Standards

Individual data standards are contained in the FAA Data Registry (FDR). The FDR is the authoritative source for data standards and the reader is directed to that on-line source for the active standards. Within the FDR, the individual data elements are part of a larger set of items broadly referred to as administered components. The following list holds (1) the component identification number assigned by the FDR and (2) the formal name given to the administered component in accordance with the FDR data naming conventions. Detailed information about each data standard is available in the FDR at its Web site <http://fdr.faa.gov/>.

Appendix B

DEFINITIONS

Application. A computer program designed for a specific task or use.

Data. Representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by human or automated means.

Data Element. A basic unit of identifiable and definable information that occupies the space provided by fields in a record or blocks on a form. A data element has an identifying name and value or values for expressing specific facts.

FAA Data Registry. A tool that supports the registration and standardization of data elements and other administered components by recording and disseminating data standards, which facilitates data sharing among organizations and users. A data registry provides users of shared data a common understanding of a data element's meaning, attributes, and unique identification. Approved data standards in the registry will be used by information systems developers to enable data sharing.

Data Registrar. The Data Registrar administers the FAA Data Registry, a repository for FAA data standards. The Data Registrar provides advice to the Data Stewards on data registration procedures, national and international standards, data stewardship practices, and data harmonization procedures.

Data Steward. A Data Steward manages the development, standardization, and certification of data within an assigned area of responsibility. A Data Steward is responsible for the accuracy, reliability, quality, and currency of descriptive information (metadata) about data in an assigned area of responsibility.

Developer or Developing Organization. An organization with primary responsibility for developing or acquiring an information system. If a contractor develops a system, the FAA organization responsible for that contract is the developing organization.

Interface. The performance, functional, and physical attributes required to exist at a common boundary.

Information System. A combination of information, computer, automation system, telecommunications resources, personnel resources, and other information technology that collects, records, processes, stores, communicates, retrieves, and displays data.

Metadata. Metadata includes information that describes the characteristics of data; facts or information about data; and descriptive information about an organization's data activities, systems, and holdings.

NAS Data. NAS data are the data shared among NAS applications and specified in Interface Requirements Documents that are configuration managed by the NAS CCB.

NAS Change Proposal. FAA Form 1800-2 is used to propose changes to or establish baselines of NAS systems/subsystems and their associated documentation.

NAS System. Hardware or software or a combination thereof that provide a solution for NAS requirements.

New Procurements. New Procurements are defined as acquisitions:

- a. that have not yet been approved by the Joint Resource Council (JRC), or
- b. for which the Final Requirements Document (FRD) has not been approved by the JRC.

NAS Configuration Control Board. The senior board responsible for establishing and maintaining NAS-level baseline.

Standard Data Element. A data element that has been formally approved in accordance with the Standardization procedures. Alternatively, standard data elements are data that have been coordinated through the standardization process and approved for use in information systems.

System Owner. The manager responsible for the organization that sets policy, direction, and manages funds for an information system. Systems under development are owned by the developing organization until accepted and authorized by the operating organization.